Hauschild, et al. Ser. No. 10/019,749 Page 3 of 13

In the claims:

Please cancel claims 19 and 29 and amend the remaining claims as set forth below.

11 (Currently Amendment) A shank-end tool for the milling-type machining of chipless materials for the manufacture of molds, especially heat-resistant casting molds for producing metal castings, said tool comprising:

a shank portion having a longitudinal axis, a first end that can be connected detachably to a drive device and a second end with a groove-shaped recess extending in the longitudinal direction; and

a cutter blade as an insert tool in the form of a flat bar in said groove and fixedly attached to the shank, said cutter blade having a flat leading face in a direction of advance during use,

wherein the cutter blade <u>in the form of a flat bar</u> is provided with wear-resistant blade edge without cutting edges on the leading face,

wherein the cutter blade is a flat blank of a material selected from the group consisting of steel, wear-resistant steel, or a wear-resistant material, and wherein said blade edge is at a right angle to the flat leading face.

12 (Currently Amended). A shank-end tool in accord with Claim 11, wherein the flat leading face of the cutter blade is more wear resistant then the rear side of the cutter blade, wherein the cutter blade comprises a steel base material and is provided with a wear - protective covering on the leading flat face, the wear-protective covering being a material selected from the group consisting of steel, wear resistant steel, or a wear resistant material, and wherein said blade edge is at a right angle to the flat a hard substance, a metal composite containing hard substances, and a metal alloy containing a hard substance.

13 (previously presented). A shank-end tool in accord with Claim 11, cutter blade further comprising a trailing edge behind the blade edge when viewed in the direction of advance, wherein the blade edge and the trailing edge are rounded.



14 (previously presented). A shank-end tool in accord with Claim 11, wherein the flat leading face of the cutter blade has a rounded corner or a corner cut at an angle.

15 (previously presented). A shank-end tool in accord with Claim 11, wherein the flat leading face of the cutter blade has an outer contour with a circular arc or conical shape.

16 (previously presented). A shank-end tool in accord with Claim 11, the cutter blade further comprises a curved surface having a convex face or a bent surface, parallel to the longitudinal axis, with the convex face of the curved surface or of the bend pointing in a direction of rotation of the shank in use.

17 (previously presented). A shank-end tool in accord with Claim 11, wherein the cutter blade further comprises shovel-like blade folds that are sloped with a blade angle relative to the longitudinal axis to produce fan-like action.

18 (previously presented). A shank-end tool in accord with Claim 11, wherein the cutter blade comprises a material selected from the group consisting of a metal, a high-strength elastically deformable material, and a springy material.

19. Cancelled.

20 (previously presented). A shank-end tool in accord with Claim 11, wherein the shank comprises a tubular or cylindrical hollow body at least at the second end.

21 (currently amended). A method for the milling-type machining of chipless materials for the manufacture of heat-resistant <u>sand</u> molds, said method comprising: providing a shank-end tool comprising:

a shank portion having a longitudinal axis, a first end that can be connected detachably to a drive device and a second end with a groove-shaped



Hauschild, et al. Ser. No. 10/019,749 Page 5 of 13

recess extending in the longitudinal direction; and

a cutter blade <u>as an insert tool in the form of a flat bar</u> in said groove and fixedly attached to the shank, said cutter blade having a flat leading face in a direction of advance during use,

wherein the cutter blade is provided with a wear resistant non-cutting blade edge on the leading face: face; and

wherein said blade edge is at a right angle to the flat leading face; and machining a chipless material with the shank-end tool to provide a finished form.

22 (currently amended). A method for the milling-type machining of chipless materials in accord with claim 21, wherein the flat leading face of the cutter blade is more wear resistant then the rear side of the cutter blade, wherein the cutter blade comprises a steel base material and is provided with a wear - protective covering on the leading flat face, the wear-protective covering being a material selected from the group consisting of steel, wear resistant steel, or a wear resistant material, and wherein said blade edge is at a right angle to the flat a hard substance, a metal composite containing hard substances, and a metal alloy containing a hard substance.

23 (previously presented). A method for the milling-type machining of chipless materials in accord with Claim 21, wherein the cutter blade further comprises a trailing edge behind the blade edge when viewed in the direction of advance, wherein the blade edge and the trailing edge are rounded.

24 (previously presented). A method for the milling-type machining of chipless materials in accord with Claim 21, wherein the flat leading face of the cutter blade has a rounded corner or a corner cut at an angle.

25 (previously presented). A method for the milling-type machining of chipless materials in accord with Claim 21, wherein the flat leading face of the cutter blade has an outer



contour with a circular arc or conical shape.

26 (previously presented). A method for the milling-type machining of chipless materials in accord with Claim 21, wherein the cutter blade further comprises a curved surface having a convex face or a bent surface, parallel to the longitudinal axis, with the convex face of the curved surface or of the bend pointing in a direction of rotation of the shank in use.

27 (previously presented). A method for the milling-type machining of chipless materials in accord with Claim 21, wherein the cutter blade further comprises shovel-like blade folds that are sloped with a blade angle relative to the longitudinal axis to produce fan-like action.

28 (previously presented). A method for the milling-type machining of chipless materials in accord with Claim 21, wherein the cutter blade comprises a material selected from the group consisting of a metal, a high-strength elastically deformable material, and a springy material.

29. Cancelled

30 (previously presented). A method for the milling-type machining of chipless materials in accord with Claim 21, wherein the shank comprises a tubular or cylindrical hollow body at least at the second end.